of insects, and the relatively small number of monographers working on them. The troubles which led to Pate's angry protests, quoted above, are very possibly a forerunner of many more likely to confront the entomologists because of the Official List and other features of the zoological rules. Surely there is much food for thought in Dr. Fosberg's remark that in the botanical rules the principle of priority and the type method "are the only fundamentally objective features in the rules of nomenclature, and are the bulwarks standing between an orderly and understandable system and nomenclatural anarchy." Botanists will do well to drop their legendary inferiority complex (wholly unjustified by their accomplishments in systematics), and follow closely the spirit of Article 6 of their rules (quoted almost word for word in Article 1 of the zoological code): "Botanical nomenclature is independent of zoological nomenclature." The zoologists have adopted arbitrary rules, then permitted a group of individuals to suspend them as occasion arises. The results have not been altogether happy. Botanists may well heed Dr. Smith's admonitions against what is likely to be "an impractical solution of a problem which is approaching clarification by the normal procedures of careful monographic and bibliographic work in plant taxonomy."

SOUTHERN METHODIST UNIVERSITY
Dallas 5, Texas

RANGE-EXTENSIONS AND -CLARIFICATIONS IN NEW HAMPSHIRE

A. R. HODGDON AND STANLEY KROCHMAL

IT seems advisable to record range data for a miscellaneous assemblage of New Hampshire species of vascular plants collected by the authors or brought to their attention during recent years.

1. RANUNCULUS FASCICULARIS Muhl.

On May 15, 1948, the senior author and K. W. Woodward collected this buttercup near the summit of the middle member of the Pawtuckaway Mountains in the township of Nottingham. The habitat was a warm southern slope dominated by *Carya ovata* and *Ostrya virginiana*—the elevation somewhat more than

700 feet. The species has been reported previously from New Hampshire but specimens of it are difficult to locate. F. W. Batchelder[1] listed it with the accompanying notation "rare" and H. G. Jesup[2] reported it from "North Charlestown—Dr. Graves". The Reverend H. J. Sheehan O.S.B. of St. Anselm's College who has made an exhaustive study of the Batchelder Herbarium reports that he has failed to find there a specimen of *Ranunculus fascicularis*. However, the earlier collections of Batchelder were destroyed by fire in 1902 and apparently he did not succeed in replacing all of these before his death in 1911. As the species has not been reported from Maine[3] or farther to the Northeast[4], the new station would seem to have particular significance as a northeastern extension of range.

2. CHIMAPHILA MACULATA (L.) Pursh.

On October 20, 1948, a class in Botany from the University of New Hampshire, while exploring a deciduously wooded southern slope in Lee, near Turtle Pond, found a few scattered plants of the attractive spotted wintergreen. The member of the group to have first noticed its variegated foliage among the fallen hickory leaves was Mr. Francis Fay.

In the second edition of Jesup's Flora, 1891, there appears the following note relating to *C. maculata* "growing with *C. umbellata*." This may refer to Vermont for which there are several accepted printed records. A more definite N. H. report is that of Walter Deane[5] who states that an herbarium specimen had been seen from New Hampshire. On August 31, 1929, the Reverend H. J. Sheehan collected *Chimaphila maculata* in a pine-grove in Goffstown, Hillsboro Co., along the Piscataquog River. In 1948 this station was revisited but camps had been erected and according to Sheehan's report "the search was fruitless". Recently the senior author located a specimen of *C. maculata* in the Windham collection of Wm. Samuel Harris. It is possible

[1] Plants of Manchester, N. H. Proc. Manchester Institute of Arts and Sciences, Vol. IV, Part 2, 1909.

[2] A Preliminary Catalogue of Flowering Plants and Higher Cryptogams Growing without Cultivation within 30 Miles of Hanover, 1882.

[3] Ogden, E. C. et al. Check-List of the Vascular Plants of Maine. Bull. of the Josselyn Bot. Soc., No. 8, Aug. 1948.

[4] Benson, L. A Treatise on the North American Ranunculi, Am. Midl. Nat. 40, 1, July 1948.

[5] Rhodora: 1, 93, 1899.

that this collection is the one referred to above by Walter Deane. It is apparent, therefore, that the spotted wintergreen is exceedingly rare in New Hampshire. Inasmuch as there are no reports of it from Maine[3] loc. cit. or specimens in our herbaria from areas farther to the north and east, we may assume that it reaches the northeastern limits of its known range in Lee, New Hampshire.

3. PODOSTEMUM CERATOPHYLLUM Michx.

During the past season the junior author and his co-workers of the N. H. Fish and Game Department Waterfowl Habitat Study discovered three new stations for this species to add to those previously reported by Hodgdon and Krochmal.[6] These stations are as follows: Warner River, Warner, Merrimack County—where abundant; Merrimack River near entrance of brook from Pine Island Pond, Manchester, Hillsboro Co.—scattered; and Suncook River, below bridge on route 28, Barnstead, Belknap Co.—rare. In addition to the above, Prof. N. C. Fassett, in the summer of 1948, sent to the senior author specimens of Podostemum collected in Hillsboro on rocks exposed by low water along highway 9 near junction with 31. This is at or near the Hillsboro station reported in Rhodora[6] loc. cit.

4. IVA FRUTESCENS L. var. ORARIA (Bartlett) Fernald & Griscom.

This species several years ago was reported[7] by the senior author as new to New Hampshire. Recent field studies along the shore of Great Bay and near Portsmouth demonstrate the plant to be locally abundant. In October 1947 specimens were collected by A. R. Hodgdon and D. P. Gangi on Footman's Island in Great Bay in the township of Durham. Three new townships, all in Rockingham Co., have been added to its range by the late 1948 and early 1949 botanizings of the junior author. The specific localities are as follows: Newmarket—shore of Great Bay and Vol's Island; Newcastle—route 1, near Portsmouth; and Portsmouth—near the Newcastle Station. While it might have been expected on the eastern side of the Piscataqua River in Maine, a hasty search of the Elliot and Kittery shores in December 1948 by the junior author proved fruitless. We are finding an increasing number of localized species in southeastern

[6] Rhodora: 50, Aug. 1948.
[7] Rhodora: 46, 22, 1944.

New Hampshire which fail to "bridge the gap" between it and Maine. For some, the river itself would seem to be the barrier.

5. Rhamnus Frangula L.

In view of the abundance and weedy character in Durham of this otherwise infrequent shrub, it seems entirely appropriate to discuss its occurrence in New Hampshire. While it is not listed in the recent check list of the Vascular Plants of Maine[3], several herbarium specimens and a number of published reports attest to its occurrence in Nova Scotia, Quebec, Massachusetts, and Connecticut. A specimen in the Herbarium of the New England Botanical Club from Dublin has been the sole record for New Hampshire.

The senior author has collected this species a number of times in wooded situations or waste-areas in Durham as well as on a partially wooded pasture slope in the township of Northumberland in Coos Co., above the Connecticut River at some distance from a habitation.

In Durham, the presence of ornamental *Rhamnus Frangula* of nearly tree-like proportions in the shrubby border of the President's house in the center of Durham village perhaps explains the source of the fruits and seeds which apparently are carried by birds to wild areas in the general vicinity. This may or may not be a weed of future importance. However, at present it is well established in Durham and is showing signs of rapid spread. Collections have been made in Durham from vigorous plants in three fairly widely separated wooded areas and in addition the species has been observed in some abundance along a Durham road in an open situation.

6. Centaurea solstitialis L.

It is always something of a problem to know how to treat the erratic members of the flora. Barnaby's thistle, while not an abundant weed, has been taken on two separate occasions in widely separated parts of New Hampshire and sent to the University of New Hampshire for identification, once from Claremont in Sullivan County in 1945 and again by Andrew S. Abbott in Bristol in Grafton Co., Aug. 1948. The fragments sent have been put into the University Herbarium and readily serve to permit identification. It is not known whether this species is

persisting or spreading in the state. The Bristol specimens were reported as appearing in a garden following applications of sheep manure. Apparently this species may be expected as a casual adventive in New Hampshire, as it is farther south.

7. SILYBUM MARIANUM (L.) Gaertn.

Ella T. Pearson of Epping, in Rockingham County sent in on October 15, 1946, a large specimen of the Lady's Thistle which had appeared as an adventive in her garden.

8. DIGITALIS LANATA Ehrh.

Mrs. Norma Roberts of Bristol, Grafton County, sent a specimen with the notation "two plants that came up a few feet apart in an old garden—. I have no idea where they could have come from."

Herbarium specimens of the species discussed above are variously distributed in the collections of the New England Botanical Club, the University of New Hampshire, and St. Anselm's College.

UNIVERSITY OF NEW HAMPSHIRE AGRICULTURAL EXPERIMENT STATION (A. R. H.) AND
NEW HAMPSHIRE STATE FISH AND GAME DEPARTMENT (S. K.)

Vol. 52, no. 617, including paqes 77–128 and plate 1161, was issued 10 May, 1950.